

REFERENCES

- DAY, F. (1878): The Fishes of India: a natural history of the fishes of India, Burma and Ceylon, text including supplement—London, 1:i-xx, 1-816; 2, 195 pls.
- (1889): The Fauna of British India, including Ceylon and Burma—Fishes—London, 1: i-xviii + 1-548, figs. 1-164; 2:i-xiv + 1-509, figs. 1-177.
- HORA, S. L. (1937): Notes on fishes in the Indian Museum XXVIII. On three collections of fish from Mysore and Coorg, South India. *Rec. Indian Mus.* 39:5-28.
- (1941): Notes on fishes in the Indian Museum, XLI. New records of freshwater fish from Travancore. *Rec. Indian Mus.* 43:387-393.
- KULKARNI, C. V. & RANADE, M. R. (1974): Chapter I. Fishes. Gazetteer of India, Maharashtra State Gazetteers, General series: Fauna, pp. 1-66.
- MENON, A. G. K. (1963): A distributional list of fishes of the Himalayas. *J. Zool. Soc. India* 14(1-2):23-32.
- (1974): A checklist of fishes of the Himalayan and the Indo-Gangetic Plains. Special Publication No. 1. Inland Fisheries Society of India, Barrackpore. pp. i-vii + 1-136.
- MISRA, K. S. (1961): An aid to the identification of the common commercial fishes of India and Pakistan. *Rec. Indian Mus.* Delhi, 57:1-320, text-figs. 1-198.

TWO NEW SPECIES OF SPIDERS OF THE GENERA *CHEIRACANTHIUM* KOCH AND *CLUBIONA* LATREILLE (FAMILY: CLUBIONIDAE) FROM INDIA¹

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(With eight text-figures)

The spiders of the family Clubionidae are very little known in India. I have described previously (1962) a single species of the genus *Cheiracanthium*; subsequently Patel & Patel (1973) described a second species and very recently (1975) I have described the third species of this genus from India. The spiders of the genus *Clubiona* are practically unknown in the Indian fauna. Recently Patel & Patel (1973) described a single species of the genus *Clubiona* from Gujarat.

While examining the spider collection received from Dr. G. L. Sadana, Punjab Agri-

cultural University, Ludhiana, Punjab, I came across two new species belonging one each to the genera *Cheiracanthium* and *Clubiona* which are described here.

All the type specimens will in due course be deposited in the National Collections of Zoological Survey of India, Calcutta.

***Cheiracanthium sadanai* sp. nov.²**

General: Cephalothorax, abdomen and legs light green. Total length 8.00 mm. Cephalothorax 3.20 mm long, 2.30 mm wide; abdomen 4.80 mm long, 2.50 mm wide.

species after Dr. G. L. Sadana, Agricultural University, Ludhiana, who collected this specimen for my study.

¹ Accepted February 1976.

² It is with much pleasure that I have named this

Cephalothorax: Longer than wide, wider in front, clothed with fine hair and a few spine-like hairs, moderately convex, cephalic region slightly higher than posterior region. Eyes pearly white, anterior row slightly recurved and posterior row procurved; lateral eyes nearly contiguous; medians nearly oval and white, slightly larger than laterals. Ocular quad longer than wide and slightly wider behind than in front. Middle of cephalothorax provided with

a fovea. Chelicerae strong, nearly vertical and dark brown in colour, provided with inner scopulae, inner margin provided with two small teeth but outer margin with one tooth large and another one very small. Maxillae and labium as in text-fig. 2 provided with deep brown colour. Sternum heart-shaped, pointed behind, clothed with fine hairs. Legs long, clothed with hairs and spines. Anterior legs longer than posterior. Male palp as in text-fig. 4.

Abdomen: Rather long, narrowed posteriorly, clothed with pubescence and some long hairs. Ventral side uniform pale coloured. Epigyne as in text-fig. 3.

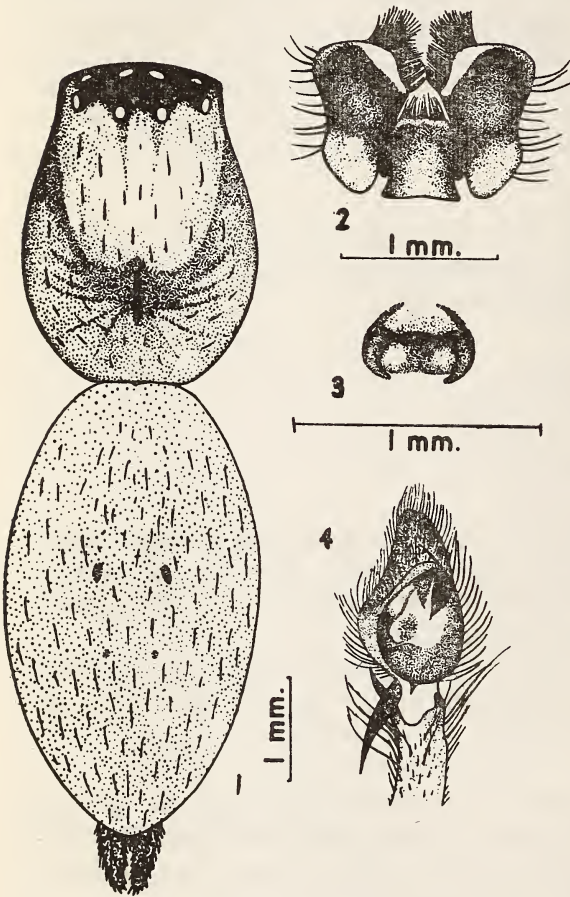
Holotype female, *allotype* one male in spirit. *Type-locality*: Ludhiana Agricultural University compound, Punjab, India. Coll. Dr. G. L. Sadana, 12-xi-1975.

This species resembles *Cheiracanthium danieli* Tikader, but it can be distinguished as follows: (i) Abdomen dorsally pale-greenish in colour but in *C. danieli* abdomen dorsally brownish-green. (ii) Epigyne and male palp structurally different.

***Clubiona ludhianaensis* sp. nov.**

General: Cephalothorax and legs brownish green, abdomen pale-green. Total length 11.00 mm. Cephalothorax 4.20 mm long, 3.00 mm wide; abdomen 6.80 mm long, 3.60 mm wide.

Cephalothorax: Longer than wide, wider in front, clothed with fine hair and some spine-like hairs; convex, cephalic region slightly higher than posterior region. Eyes pearly white, posterior row longer and slightly procurved; anterior row nearly straight. Ocular quad wider than long and wider in behind, all eyes nearly of same size. Middle of cephalothorax provided with prominent fovea. Chelicerae strong, nearly vertical and dark brown in colour, inner margin provided with two equal size teeth and outer margin with three teeth but middle one larger than other two teeth. Maxillae and labi-



Figs. 1-4. *Cheiracanthium sadanai* sp. nov.
 1. Dorsal view of female, legs omitted; 2. Maxillae and labium; 3. Epigyne; 4. Right male palp, ventral view.

NEW DESCRIPTIONS

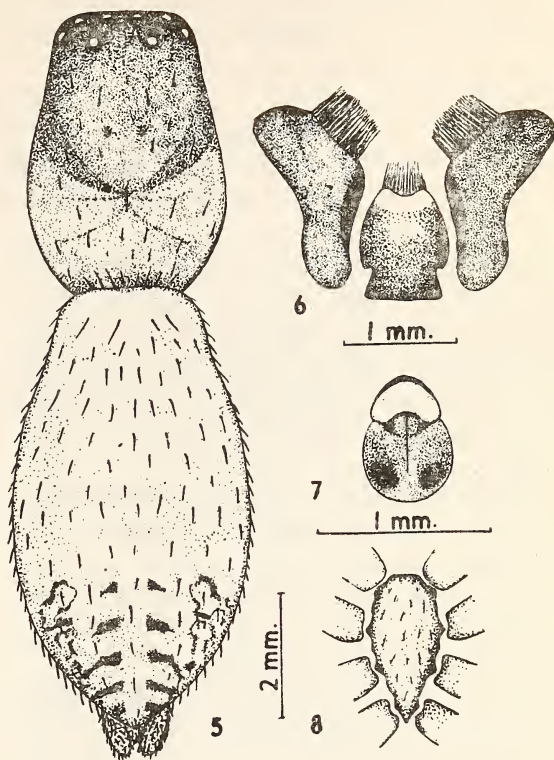
um as in text-fig. 6, provided with deep brown colour and anterior end of maxillae provided with conspicuous scopulae. Sternum nearly heart-shaped, longer than wide, clothed with fine hairs; border just opposite of coxa of legs provided with conspicuous dark brown marks as in text-fig. 8. Legs long, stout, clothed with hairs. Posterior legs longer than anterior legs. Tibiae of I and II provided with two pairs of ventral spines and metatarsi and tarsi also provided ventrally with scopulae.

Abdomen: Longer than wide, narrowed posteriorly, clothed with pubescence. Posterior half of abdomen provided with brown markings as in text-fig. 5. Ventral side uniform pale colour. Epigyne as in text-fig. 7.

Holotype female, *paratype* one female in spirit.

Type-locality: Ludhiana, Punjab Agricultural University compound, Punjab, India. Coll. *Dr. G. L. Sadana*, 10-xi-1975.

This species resembles *Clubiona pashabhaii* Patel & Patel but it can be distinguished as follows: (i) Posterior half of abdomen provided with brown markings but in *C. pashabhaii* abdomen provided with three rows of longitudinal deep brown dots. (ii) Epigyne structurally different.



Figs. 5-8. *Clubiona ludhianaensis* sp. nov.
5. Dorsal view of female, legs omitted; 6. Maxillae and labium; 7. Epigyne; 8. Sternum of female.

REFERENCES

PATEL, B. H. & PATEL, H. K. (1973): On some new species of spiders of the family Clubionidae (Araneae: Arachnida) with record of genus *Castineira* Keyserling from Gujarat, India. *Proc. Indian Acad. Sci.* 78(1):1-9.

TIKADER, B. K. (1962): Studies on some Indian

spiders (Araneae: Arachnida). *J. Linn. Soc., London*, 44:568.

————— (1975): A new species of spider of the genus *Cheiracanthium* Koch (Family: Clubionidae) from India. *J. Bombay nat. Hist. Soc.* 72(1): 43-45.